



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,501	07/05/2006	Jean-Christophe Giron	283486US0PCT	9280
22850	7590	01/29/2010	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			NELSON, MICHAEL B	
			ART UNIT	PAPER NUMBER
			1794	
			NOTIFICATION DATE	DELIVERY MODE
			01/29/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/564,501	GIRON ET AL.	
	Examiner	Art Unit	
	MICHAEL B. NELSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 January 2010.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18, 21 and 22 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-18, 21, 22 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/14/2010 has been entered. Claims 1-18, 21-22 are currently under examination on the merits.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-11, 15-18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giron et al. (WO/2002/006889), see English language equivalent Giron et al. (U.S. 2004/0053125) in view of Barth et al. (U.S. 6,294,233).

Regarding claim 1, Giron et al. discloses a glazing assembly, which reads on the limitations of instant claim 1.

(See [0020]-[0024], the active layers (i.e. electrochromic system layers) and the protective polymer layer lie in between the two rigid substrates. The order of the layers is disclosed at [0080]: rigid glass substrate (1), active stack (2) (3) and (4), EVA film (not shown in Figs.) and second rigid glass substrate (5). The presence of the EVA film between the active component of the glazing and the second glass layer is further disclosed at [0024] and [0025]. The first rigid glass substrate is a “protective” substrate in that it provides a degree of protection to the internally laminated active stack. The second rigid substrate is a “carrier” substrate in that it is bonded to and carries the active stack and the EVA film.)

While Giron et al. does not explicitly disclose that the polymer layer functions to retain fragments of the glazing assembly should the assembly break, in light of the substantially identical polymer layer thickness and composition (i.e. polyurethane ([0024]) 0.8 mm thick ([0091])) with the instant disclosed polymer layer, (See instant specification, page 9, lines 1-5), it

will, intrinsically, possess the claimed properties, absent any objective evidence to the contrary.

See MPEP 2112 (In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

Giron et al. does not explicitly disclose an additional solar protective layer being positioned on the outer face of the first substrate, however, Barth et al., which is also directed towards optically functional glass based panels, discloses that solar protective films, which could be affixed to the outer surface of glass panels, were known to those having ordinary skill at the time of the invention (C1, L25-50). One having ordinary skill in the art would have found it obvious to have provided one of solar protective films of Barth et al. to the outer surface of the substrates of the panel of Giron et al. in order to improve the protection from solar radiation (C1, L15-25).

Regarding the "faces outside towards the sun" limitation, this limitation is intended to specify the orientation of the glazing upon its final application. One having ordinary skill in the art would have found it obvious to have applied the glazing of Giron et al. in both orientations (i.e. active stack adjacent substrate facing inward and facing outward) when designing the appropriate manner for installing it, for example, in an automobile.

Regarding claims 2, 3, 9 and 10, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a glazing assembly which reads on claims 2, 3, 9 and 10.

(See Abstract, the active system in the assembly is electrochromic, which provides and optical function (reads on claims 2 and 3). See [0124], the screen-printing of conductive strips in place of the wires which lie along the periphery of the substrates (Fig. 7, 14a-c, 15a-c) is disclosed. These conductive strips would alter the opacity of the

substrate to some degree and therefore would constitute an opacifying coating (i.e. reads on claim 9). See [0040]-[0046], the deactivated lower electroconductive layer along the periphery of the substrate, (deactivated via localized ablation, [0046]), constitutes a margining line (reads on claim 10).)

Regarding claims 4-8, 21 and 22, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a glazing assembly which reads on claims 4-8, 21 and 22.

(See [0091]-[0092], the two substrates are of glass (reads on claim 4) about 2mm thick each, and the plastic layer is 0.8mm thick, which makes a total thickness of 2.8mm thick. The other layers deposited in the assembly have a maximum disclosed total thickness of 1340 nm or 0.00134mm (i.e. 20+350+100+100+100+370+300 nm), making the total assembly thickness 2.80134mm, which lies within the ranges of instant claims 5 and 6. The two glass substrates are about 2mm thick each, which makes them substantially the same dimension and they have identical rectangular shapes (reads on claim 7), while in Fig. 4 ([0107]), one glass pane is smaller than the other, giving it the same shape with different dimensions (reads on claim 8). See [0074], the glass laminates may be curved (reads on claim 21). See [0070], the glass substrates are disclosed as being bulk tinted, which gives them a degree of opacity and therefore makes them opacified substrates (reads on claim 22).)

Regarding claims 11, 15 and 16, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a glazing assembly which reads on claims 11, 15 and 16.

(See [0069]-[0070], an insulating polymer film frame is disclosed to lie around the periphery of the substrates as a seal (reads on claim 11), with two of its sides having flexible conductive current leads or conductive coatings which serve as connection elements (reads on claim 16) for the active system within the frame and also provide a degree of mechanical reinforcement for the polymer seal. Also, the polymer film frame is positioned on, and at least partially fills, the marginal deactivated areas, which, being deactivate via ablation, constitute open groove spaces between the two substrates (reads on claim 15).

Regarding claim 17, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a method of forming an article comprising, forming an article with a glazing assembly; wherein the article is selected from the group consisting of a window, a sunroof, a skylight, a display panel, a display case, and a piece of furniture.

(See [0080]-[0092], the method for making assembly is disclosed. See [0074], an embodiment of the assembly in an automobile roof (i.e. sunroof) is disclosed.)

Regarding claim 18, Giron et al. discloses all of the claimed limitations as set forth above.

Giron et al. does not explicitly disclose the specific passing of the safety tests of the ECE R43 and ANSI Z26.1 standards for the glazing assembly. However, in light of the substantially identical glass substrate thickness, polymer layer composition and thickness and the substantially identical sealants in the glazing assembly of Giron et al. with the instant glazing assembly, it

will, inherently, possess the claimed properties, absent any objective evidence to the contrary.

See MPEP 2112 (In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

6. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giron et al. (WO/2002/006889) in view of Barth et al. (U.S. 6,294,233) as applied to claims 1 and 11 above, and further in view of Johnson et al. (U.S. 6,284,360).

Regarding claims 12-14, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally Giron et al. discloses a glazing assembly used in an embodiment for a vehicle sun roof, ([0074]), which would require a secondary frame seal to mount the assembly into the vehicle.

Giron et al. does not disclose a glazing assembly which explicitly meets the limitations of claims 12-14.

Johnson et al. discloses a sealant composition for use with motor vehicle windshields (See Abstract) which meets the limitations of claims 12-14.

(See Fig. 8, the seal encapsulates and is in contact with the edges of the windshield (reads on claims 12 and 13). Also see Fig. 7, the seal is flush with both outer faces of the windshield (reads on claim 14).)

The use of produce-by-process limitations has been noted in Claim 13, such as, for example, “seals are formed by extrusion or obtained by encapsulation.” While Johnson et al. **does** in fact teach these processes to produce seals, the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed.

Cir. 1985). As the court stated in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.).

Giron et al. discloses a glazing assembly for use in a vehicle sun roof without any specific mention of the means for mounting the glazing assembly and therefore it would have been obvious to look to other references for an appropriate vehicle mounting system (as in Johnson et al.). The inventions of both Giron et al. and Johnson et al. are drawn to the field of windshields and therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have included the sealant of Johnson et al. with the assembly of Giron et al. for the purposes of installing the windshield in the vehicle for which it is intended to reside.

Response to Arguments

7. Applicant's arguments filed on 11/23/09 have been considered but are not persuasive.
8. The examiner maintains the position that it would have been obvious to, having the same stack of layers as those instantly claimed, flip the laminate between the two possible mounting configurations (i.e. polymer layer facing out or polymer layer facing in), to arrive at the instantly claimed limitation regarding which layers face towards the sun.
9. Applicant argues that the bending of the glazing would make it non-obvious to switch which of the substrates faced outwards. The examiner notes that Giron discloses curving the substrates but again does not disclose any particularity as to which of substrates should be curved

(i.e. the one facing inside or the one facing outside). Nor does it disclose where the plastic layers should be in relation to the bending. As explained above, given the extremely limited number of configurations, one having ordinary skill in the art would have arrived at the instant invention's placing of the plastic layer so that it faces inside.

10. The examiner's position is summarized below from previous office actions.

11. Applicant makes numerous citations to Giron to show that Giron specifies the order of the layer in the stack using terms like "above," "below," "carrier," "first," "second," etc. The examiner does not dispute that the layers are arranged in an order but the critical difference, which was explained in the previous office action, is that **Giron's arrangement of the layers in his stack is not given with any reference to how the stack should be installed as a window.**

12. Because Giron does not disclose which side of his stack should face the outside when it is installed as a window, one having ordinary skill in the art would then have the simple task of choosing between two possible configurations: the one where the side with the active stack is facing inside and the one where the side with the active stack is facing outside. From this incredibly limited set of possible arrangements, one having ordinary skill in the art would have found it obvious to have arrived at applicant's arrangement.

13. Applicant gives several of their own reasons why one having ordinary skill would not flip the stack, however the examiner notes that none of these are disclosed in Giron (i.e. to teach away from that configuration) and there are numerous reasons why one having ordinary skill in the art would flip the stack when installing the windows.

14. Applicant then argues for unexpected results. The examiner has considered applicants arguments of unexpected results and has concluded that because the prior art stack is exactly the

same as the instant stack except for the fact that it does not disclose which side faces outside when it is installed, and because one having ordinary skill in the art would have found it obvious to flip the stack between its two possible orientations, applicant's results are not unexpected because they would be realized by one having ordinary skill in the art through the obvious adjustment of the orientation of the stack of Giron.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patricia L. Nordmeyer/
Primary Examiner, Art Unit 1794

/MN/
01/22/10